WHAT IS CLAIMED IS:

1. A method for reducing odor, said method comprising:

modifying the surface of silica particles with a transition metal so that said silica particles are bonded to said transition metal through a covalent or coordinate bond; and

contacting said modified silica particles with an odorous compound, said transition metal providing one or more active sites for capturing said odorous compound.

2. A method as defined in claim 1, wherein said silica particles have an average size of less than about 500 microns.

3. A method as defined in claim 1, wherein said silica particles have an average size of less than about 100 nanometers.

4. A method as defined in claim 1, wherein said silica particles have an average size of from about 4 to about 20 nanometers.

5. A method as defined in claim 1, wherein said silica particles have a surface area of from about 50 to about 1000 square meters per gram.

6. A method as defined in claim 1, wherein said silica particles have a pore volume of less than about 0.5 milliliters per gram.

7. A method as defined in claim 1, wherein said transition metal is selected from the group consisting of scandium, titanium, vanadium, chromium, manganese, iron, cobalt, nickel, copper, zinc, silver, gold, and combinations thereof.

8. A method as defined in claim 1, further comprising mixing a salt of said transition metal with said silica particles to form a transition metal / silica particle mixture.

9. A method as defined in claim 8, further comprising selectively adjusting the pH of said mixture.

10. A method as defined in claim 9, wherein said pH is selectively adjusted to a pH of 7 or greater.

11. A method as defined in claim 10, wherein said pH is selectively adjusted to a pH of from about 9 to about 10.

12. A method as defined in claim 10, wherein said pH is selectively adjusted through a urea pyrolysis reaction.

13. A method as defined in claim 10, wherein said pH is selectively adjusted by adding an alkali metal carbonate, an alkali metal bicarbonate, or combinations thereof, to said mixture.

14. A method as defined in claim 10, wherein said pH is selectively adjusted by adding a basic compound to said mixture.

15. A method as defined in claim 14, wherein said basic compound is selected from the group consisting of sodium hydroxide, potassium hydroxide, ammonium hydroxide, and combinations thereof.

16. A method as defined in claim 1, wherein an organofunctional silane bonds said transition metal to said surface of said silica particles.

17. A method as defined in claim 16, wherein said organofunctional silane comprises an alkoxysilane.

18. A method as defined in claim 17, wherein said organofunctional silane comprises an aminofunctional alkoxysilane.

19. A method as defined in claim 16, wherein said organofunctional silane forms a covalent bond with silanol groups present on said surface of said silica particles.

20. A method as defined in claim 19, wherein said transition metal forms a coordinate bond with said organofunctional silane.

21. A method as defined in claim 1, wherein said odorous compound is selected from the group consisting of mercaptans, ammonia, amines, sulfides, ketones, carboxylic acids, aldehydes, terpenoids, hexanol, heptanal, pyridine, and combinations thereof.

22. A method as defined in claim 1, further comprising applying said modified silica particles to a substrate.

23. A method as defined in claim 22, wherein said substrate comprises a nonwoven, woven, or paper web.

24. A method for reducing odor, said method comprising:

mixing the salt of a transition metal with silica particles to form a transition metal / silica particle mixture;

selectively adjusting the pH of said mixture to 7 or greater so that modified silica particles are formed that contain said silica particles and said transition metal; and

contacting said modified silica particles with an odorous compound, said transition metal providing one or more active sites for capturing said odorous compound.

25. A method as defined in claim 24, wherein said silica particles have an average size of less than about 100 nanometers.

26. A method as defined in claim 24, wherein said transition metal is selected from the group consisting of scandium, titanium, vanadium, chromium, manganese, iron, cobalt, nickel, copper, zinc, silver, gold, and combinations thereof.

27. A method as defined in claim 24, wherein said salt comprises a copper ion (Cu^{+2}), silver ion (Ag^{+}), gold ion (Au^{+} and Au^{+3}), iron (II) ion (Fe^{+2}), iron (III) ion (Fe^{+3}), or combinations thereof.

28. A method as defined in claim 24, wherein said pH is selectively adjusted through a urea pyrolysis reaction.

29. A method as defined in claim 24, wherein said pH is selectively adjusted by adding an alkali metal carbonate, an alkali metal bicarbonate, or combinations thereof, to said mixture.

30. A method as defined in claim 24, wherein said pH is selectively adjusted by adding a basic compound to said mixture.

31. A method as defined in claim 24, wherein said odorous compound is selected from the group consisting of mercaptans, ammonia, amines, sulfides, ketones, carboxylic acids, aldehydes, terpenoids, hexanol, heptanal, pyridine, and combinations thereof.

32. A method for reducing odor, said method comprising:

coupling a transition metal to a surface of silica particles with an organofunctional silane so that modified silica particles are formed that contain said silica particles and said transition metal; and

contacting said modified silica particles with an odorous compound, said transition metal providing one or more active sites for capturing said odorous compound.

33. A method as defined in claim 32, wherein said silica particles have an average size of less than about 100 nanometers.

34. A method as defined in claim 32, wherein said transition metal is

selected from the group consisting of scandium, titanium, vanadium, chromium, manganese, iron, cobalt, nickel, copper, zinc, silver, gold, and combinations thereof.

35. A method as defined in claim 32, wherein said organofunctional silane comprises an alkoxysilane.

36. A method as defined in claim 32, wherein said organofunctional silane comprises an aminofunctional alkoxysilane.

37. A method as defined in claim 32, wherein said organofunctional silane forms a covalent bond with silanol groups present on said surface of said silica particles.

38. A method as defined in claim 37, wherein said transition metal forms a coordinate bond with said organofunctional silane.

39. A method as defined in claim 32, wherein said odorous compound is selected from the group consisting of mercaptans, ammonia, amines, sulfides, ketones, carboxylic acids, aldehydes, terpenoids, hexanol, heptanal, pyridine, and combinations thereof.

40. A substrate for reducing odor, said substrate containing silica particles bonded to a transition metal through a covalent or coordinate bond, said transition metal providing one or more active sites for capturing an odorous compound.

41. A substrate as defined in claim 40, wherein said silica particles have an average size of less than about 100 nanometers.

42. A substrate as defined in claim 40, wherein said transition metal is selected from the group consisting of scandium, titanium, vanadium, chromium, manganese, iron, cobalt, nickel, copper, zinc, silver, gold, and combinations thereof.

43. A substrate as defined in claim 40, wherein an organofunctional silane bonds said transition metal to said silica particles.

44. A substrate as defined in claim 43, wherein said organofunctional silane is covalently bonded to silanol groups present on a surface of said silica particles.

45. A substrate as defined in claim 44, wherein said transition metal forms a coordinate bond with said organofunctional silane.

46. A substrate as defined in claim 40, wherein said odorous compound is

selected from the group consisting of mercaptans, ammonia, amines, sulfides, ketones, carboxylic acids, aldehydes, terpenoids, hexanol, heptanal, pyridine, and combinations thereof.

47. A substrate as defined in claim 40, wherein the substrate comprises a nonwoven, woven, or paper web.

48. A substrate as defined in claim 40, wherein the solids add-on level of said modified silica particles is from about 0.001% to about 20%.

49. An absorbent article that comprises the substrate of claim 40.

50. An absorbent article as defined in claim 49, further comprising at least one liquid-transmissive layer and a liquid-absorbent core, wherein said substrate forms at least a portion of said liquid-transmissive layer, said liquid-absorbent core, or combinations thereof.

51. An absorbent article as defined in claim 50, wherein the absorbent article includes a liquid-transmissive liner, a liquid-transmissive surge layer, a liquid-absorbent core, and a vapor-permeable, liquid-impermeable outer cover, said substrate forming at least a portion of said liner, said surge layer, said absorbent core, said outer cover, or combinations thereof.

52. A paper product that comprises the substrate of claim 40.

53. A facemask that comprises the substrate of claim 40.